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Homeland Sanctuary Lost:
Urgent Actions to Secure the Arctic Flank

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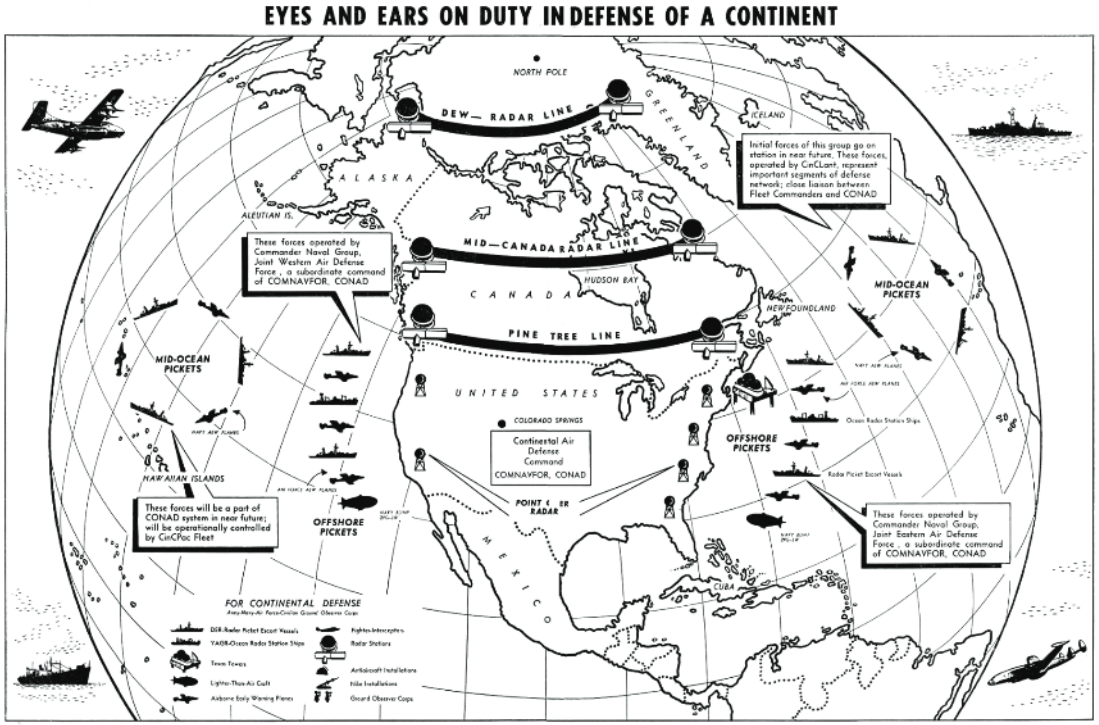
Cold War Demanded Homeland Defense #1 Priority



U.S. Navy All Hands magazine, September 1956

Threat: Atomic bombs from long-range Soviet bombers

1950's

Response: Establishment of NORAD with hundreds of early-warning radar sites across North America supplemented with radar ships in Atlantic and Pacific Oceans

Following Cold War the United States Prioritized Overseas Military Operations

1989

2001

Threat: Terrorist cells across Afghanistan and the Middle East were preparing for future attacks on the U.S. homeland

Response: NATO coalition forces sent to root out terrorist training cells and eliminate terrorists before they threaten U.S. and Europe

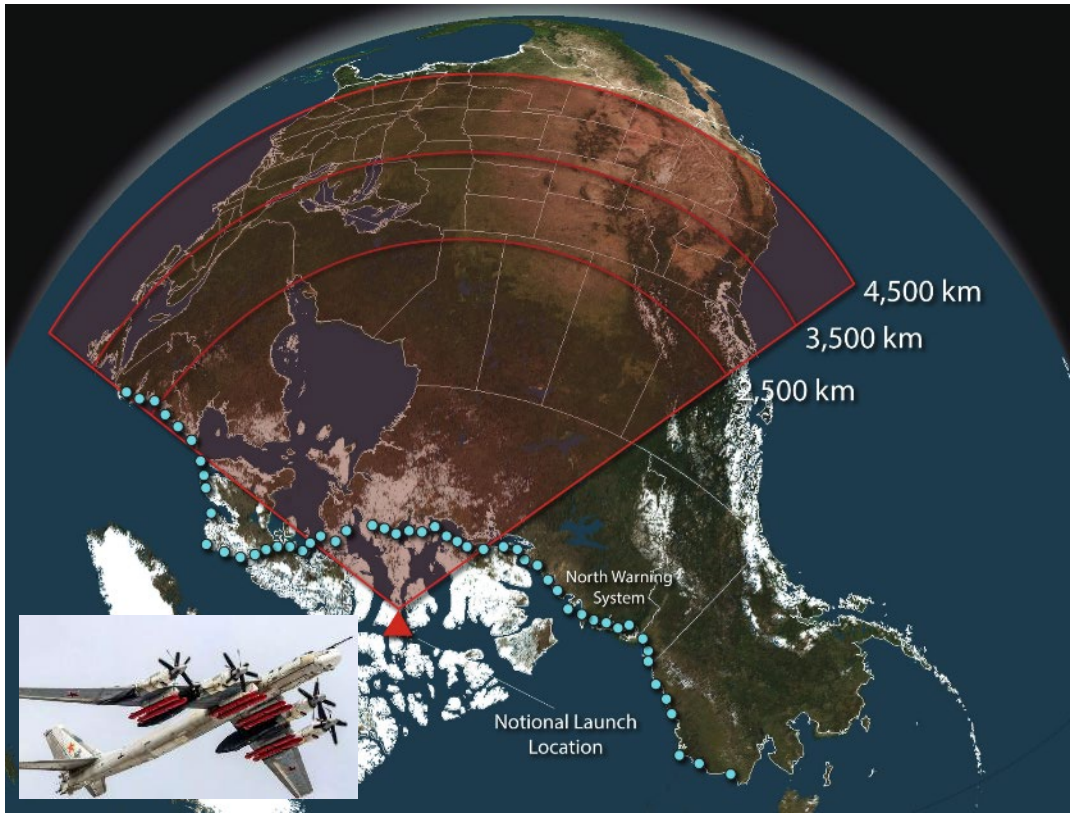
Result: NORAD defensive systems atrophied leaving us blind in High North

Arctic Strategy Recognizes the Increasing Strategic Value of the Arctic

U.S. Arctic strategy directs improved domain awareness, information sharing, and international partnerships

U.S. Arctic Missile Vulnerabilities at All Time High

- Conventional missile threat has rapidly advanced since Cold War
- Russian and Chinese long-range bombers performing joint Arctic training exercises
- Existing North Warning Radar System woefully inadequate

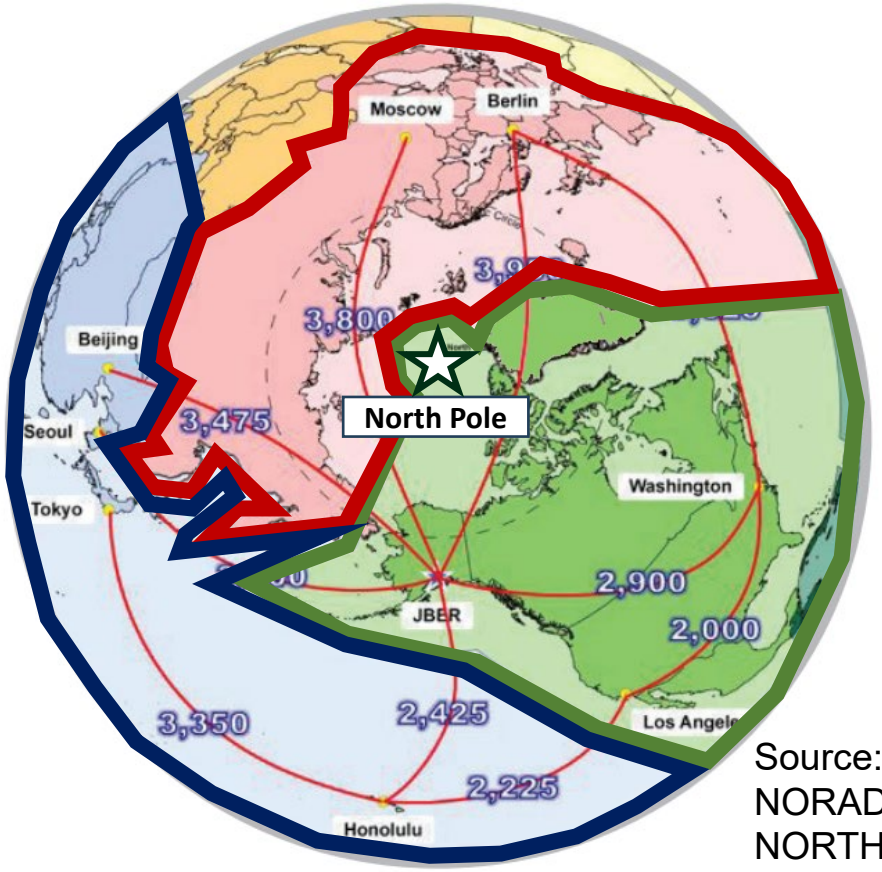


Source: CSIS Missile Defense Project.

RISK: Outdated Arctic radar systems expose North America to a modern Chinese and Russian missile threat

Converging Command & Control Boundaries Slow Information Flow

- NORAD Primary Arctic Responsibility
- USNORTHCOM, USEUCOM, USINDOPACOM
- NATO- Joint Force Command (JFC) Norfolk, JFC Brunssum
- Combined Air Operations Center (CAOC) Uedem, Germany



Source: NORAD / NORTHCOM

Global Combatant Command Areas of Responsibility

RISK: Seams reduce timely information/intelligence sharing

Classification and Policy Barriers Impede Information Sharing

- International Information Classification Differences
- Disparate Computer / Telephone Systems
- NATO / NORAD / FAA / Eurocontrol

RISK: Seams reduce timely information/intelligence sharing

Domain Awareness Done Correctly: Israeli Irondome

SOLUTION: Modern sensors and streamlined information sharing

NORAD Requires Immediate Radar Sensor Modernization– air, land, and space

Updated Policies and Computer Systems Must Streamline Information Flow

- **Successful Efforts Include:**
  - **Global Information Dominance Experiments (GIDE)**
  - **Chief Digital and Artificial Intelligence Office (CDAO)**
  - **DoD Maven Smart Information System**
  - **Combined NORAD / NATO Military Exercises**

Recommendations

1. **Defend the homeland and deter strategic attack against the United States.** Despite the rapid advance of adversary conventional weapons capable of holding the United States at risk, North American continental defense has remained a lower priority than warfighting abroad for decades.

2. **Accelerate the fusion of all-source data to enhance Arctic domain awareness.** Establish inter-agency Chief Digital and Artificial Intelligence Office (CDAO) office to identify policy and technical barriers to data and intelligence sharing while accelerating adoption of data, analytics, and artificial intelligence.

3. **Configure Sky Range UAVs for dual-use homeland defense aerial surveillance.** Test Resource Management Center's (TRMC) RQ-4 and MQ-9 UAVs offer a cost-effective, strategically located, flexible, and responsive sensing capability that can help to increase detection and tracking of air and missile threats deep into the Arctic region.

Recommendations

4. **Lead international commitment to E-7 Wedgetail acquisition.** E-7 proving itself an integral AMTI and C2 node with partners and allies. USAF AWACS fleet health is critical. E-7 provides unmatched flexibility and airborne early warning capability ideally suited for Arctic domain awareness.

5. **Accelerate modernization and replacement plan for the North Warning System.** OTHR must remain a priority effort to rebuild Arctic domain awareness. Its ability to detect low-altitude and long-range targets across vast areas, its relative cost-effectiveness, and its continuous operational coverage make it a critical asset for North American air defense.

6. **Accelerate fielding of space-based Arctic domain awareness capabilities.** The U.S. Space Force and the Space Development Agency (SDA), charged with fielding and operating future space systems, require programmatic commitment for continued development of their technologies for an Arctic defense.

Recommendations

7. **Create a new Assistant Secretary of Defense responsible for Arctic Security.** The Arctic's increasing security value requires unwavering leadership focused on improving Arctic defense and deterrence. The existing office has lost warfighting focus and requires revectoring.

8. **Foster NATO's Arctic focus and direct partnership with NORAD.** Arctic domain awareness requires NORAD and NATO direct collaboration. Vulnerable seams exist between NATO and NORAD that would be minimized through combined military exercises and increased numbers of compatible communications systems between the organizations.

Three Pillars to improving Arctic domain awareness: Sensing, information sharing & international partnerships

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